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BRIghtLights

BRIghtLights is a quarterly newsletter published by the Versiti Blood Research Institute Foundation. Interested in learning more? Please contact the Foundation office: 414-937-6799.

BRIghtLights

Shining a light on research and discovery



Versiti receives \$10M grant from Wisconsin Joint Finance Committee to fund expansion

In June, Wisconsin's Joint Finance Committee approved a \$10 million grant to build a state-of-the-art, 65,000-square-foot addition to Versiti Blood Research Institute.

"We are grateful to Governor Evers for including this project in his budget proposal and for the members of the Joint Finance Committee for choosing to invest in these lifesaving endeavors," said Versiti President and CEO Chris Miskel. "Blood conditions, such as leukemia, lymphoma, thrombosis, sickle cell disease and hemophilia have no geographic boundary. They impact every community in Wisconsin and people around the globe. This project will promote the discovery of lifesaving therapies for a broad range of blood conditions."

As a result of the expansion, Versiti will create more than 100 new jobs, generate an estimated \$19 million in additional tax revenue for the state over 30 years, and by 2050, is expected to have an economic impact for the state of Wisconsin of more than half a billion dollars.

Innovations in Research

Using cutting-edge RNA therapies to treat bleeding and clotting

For most patients with bleeding disorders, their blood contains enough of the coagulation proteins that create clots and stop bleeding. However, for these patients, clots degrade quickly, causing excessive bleeding. Senior Investigator Christian Kastrup, PhD, and his laboratory are working to develop RNA-based gene therapies for these patients.

A key component is decreasing the rate at which clots degrade. "There are a number of bleeding disorders, both rare and less rare, where the concentration of blood proteins is not ideal, and that's what causes the bleeding disorder or thrombotic disorder," Dr. Kastrup said. "We're developing an RNA gene therapy that can remove a lot of that clot degradation."

The drug commonly used to treat minor bleeding in patients with bleeding disorders is effective, but it clears from the bloodstream quickly and isn't meant to be used long-term. Dr. Kastrup and his lab are focused on creating a drug that could be used long-term and by

patients who may be ineligible for traditional treatment options, including individuals with mild and moderate forms of diseases. "We've leveraged all of the scientific advances in RNA therapy over the last 10-20 years to make a long-acting drug that could potentially be used once a month for improving health equity for people—particularly women—with bleeding disorders."



Christian Kastrup, PhD Senior Investigator

September is Sickle Cell Awareness Month

Making a cure for sickle cell disease more accessible

For many patients with sickle cell disease (SCD), a bone marrow or stem cell transplant is their best hope for a cure. But for many patients, particularly adults, transplants either aren't an option, or a familial match cannot be found. Currently, these patients are treated with therapies that help manage SCD symptoms and reduce the likelihood of severe complications. But none has the curative effect of a bone marrow or stem cell transplant.

In order to prepare patients for a transplant, they are given high-intensity conditioning regimens of chemotherapy to clear out their existing bone marrow and make space for the new one. "In the past, they typically did full conditioning regimens for children and found that patients over age 16 had increased toxicity," said Versiti Blood Research Institute (VBRI) Senior Investigator Joshua Field, MD, MS. Investigators began researching low-intensity conditioning regimens that would be less toxic to patients but found that many experienced a high rate of graft failure.

Newer research has paved the way for preventing graft failure and making transplants more accessible to adult SCD patients. However, the treatment



Joshua Field, MD Senior Investigator

carries a 10% mortality rate, causing many patients to choose to manage their symptoms, rather than cure it. It is also challenging to find matched, unrelated donors for African Americans with SCD.

But advances in technology and testing have facilitated more patient/donor matches in recent years, with two patients at the Adult Sickle Cell Clinic receiving curative bone marrow transplants. "Our clinic is well supported by the hospital, and we've been successful in making therapies available to patients," Dr. Field said. "Our patients have access to very good care ... We don't have many limitations in what we can do to provide outstanding care to sickle cell patients."

September is Childhood Cancer Awareness Month

Riley Cadiz

On Halloween 2022, 2-and-a-half-year-old Riley took a tumble and began vomiting. Over the next two weeks, she showed inexplicable bruising, petechiae and a distended stomach. "When you look up those symptoms, leukemia is the first thing that comes up," said Riley's mom, Stephanie. Exactly two weeks after Riley began feeling ill. Stephanie's suspicions were confirmed: Riley was diagnosed with high-risk B-cell acute lymphoblastic leukemia (ALL).

Riley is in the most difficult phase of front-line treatment, which will last two to three months and involves a combination of seven different drugs and steroids that make her feel ill. The Cadiz family is hopeful that advances in leukemia research will improve cancer treatment options for children like Riley. "They've been using the same drugs for 30 years. It's toxic, it's long and there have been very few new drugs approved," Stephanie said. "For us, research means strength and hope. You can't make advancements without it."



Community Beacon of Hope: CSL Behring

CSL Behring is a global biotherapeutics leader driven by their promise to save lives. They meet patients' needs using the latest technologies to develop and deliver innovative therapies

CSL Behring Biotherapies for Life[™]

and offer the broadest range of products in the industry Blood Research Institute. for treating coagulation disorders, primary immune

deficiencies, hereditary angioedema, respiratory disease and neurological disorders. CSL Behring has graciously served as a lead sponsor of Versiti's Imagine Gala for five years, helping to support lifesaving research at Versiti

Upcoming Events



4th Annual Roger Abbott Memorial Golf Outing

Date: Monday, Aug. 21 Time: 10:30 am - 8:00 pm

Location: Racine Country Club, 2801 Northwestern Ave., Racine, WI 53404



Imagine Gala

Date: Friday, Sept. 8, 2023 Time: 5:30-10:30 pm

Location: The Wisconsin Club, 900 W. Wisconsin Ave.

Milwaukee. WI 53233

Virginia Brooks Jefferson Award Recipient: Jackie Fredrick



Vampire Ball

Hosted by the Versiti Blood Research Institute Junior Advisory Board

Date: Thursday, Oct. 26 Time: 5:30-10:00 pm

Location: The Milwaukee Club, 706 N. Jefferson St., Milwaukee, WI

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Versiti Legacy Society

The Versiti Legacy Society celebrates our most dedicated and generous philanthropic supporters who invest in our research as part of their estate planning. By making a planned gift to the Versiti Legacy Society, you help grow Versiti Blood Research Institute's investment in innovation and discovery through research.